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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,432	08/05/2003	Akira Izumi	P/1250-254	8303

2352 7590 04/19/2005

OSTROLENK FABER GERB & SOFFEN  
1180 AVENUE OF THE AMERICAS  
NEW YORK, NY 100368403

EXAMINER
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LU, JIPING

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/634,432	Applicant(s) IZUMI, AKIRA	
	Examiner Jiping Lu	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☒ This action is FINAL.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4 and 9-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Status of Claims*

1. Claims 1-6, 8-15 are now in the case. Claim 7 is cancelled. Claims 3-4, 9-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

### *Claim Rejections - 35 USC § 102*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Rose et al (U. S. Pat. 5,967,156).

Rose et al show a substrate processing apparatus with a first gas discharge element 98 and a second gas discharging element 100. Both elements spray gases to the substrate at the same region of the substrate 52 (not numbered, see Fig. 5, area where N<sub>2</sub> gas contracts substrate 52). The overlapping region (between 94, 96) is deemed to be sprayed by one nozzle prior to the other nozzle because the shaft 56 (i.e. the claimed control) rotates the substrate 52 during the operation and causes spraying and re-spraying (e.g. spray on the same region previously sprayed by the other discharge element).

*Claim Rejections - 35 USC § 103*

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rose et al (U. S. Pat. 5,967,156).

The substrate processing apparatus of Rose et al. as above includes all that is recited in claim 2 except for the gas flow rate. To adjust the flow rate of the first and second element is deemed to be an obvious matter of operation in adjustment in order to obtain optimal results.

6. Claims 1, 2, 5, 6, 8 are rejected under 35 U.S.C. 103 as unpatentable over the Japanese patent publication No. 11-233481 in view of Tateyama et al. (U. S. Pat. 5,803,970).

The Japanese publication shows a substrate processing apparatus with a first medium discharge element 4, a second medium discharging element 5 and a horizontal nozzle arm 3 for moving the elements. Both elements 4, 5 spray medium to the substrate at the same region of the substrate 2 during its reciprocal movement. The spraying medium is independently controlled by the concentric supply tubes 3, 4, 5. The first (any one of nozzles 6) and second nozzles (any one of nozzles 6) are fixed to one nozzle arm 3. Tateyama et al show reciprocating discharge elements with two nozzles 457a, 458A for supplying gas to the substrate G. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the nozzles and its control assembly 457A, 458A of Tateyama et al for the nozzle and assembly 3-6 of the Japanese patent publication in order to obtain an optimal operation.

*Response to Amendment*

7. The arguments filed on January 3, 2005 are not persuasive to overcome the rejection. First, broad claims presented failed to structurally define over the prior art references. Please point out exactly which limitation that the references do not teach or show. Second, the applicant argues that claimed apparatus is for spraying drying gas to a substrate completely cleaned with de-ionized water. However, the Rose et al patent clearly shows (Fig. 14) such drying gas sprayed onto the substrate cleaned by de-ionized water. Third, the applicant also argues that the Rose patent does not spray gas. The examiner disagrees because aerosol is also a form of gas. The broad claims presented do not define what the "gas" is. Fourth, the applicant argues that the Rose patent is for cleaning apparatus and not for drying. The examiner disagrees because the device of Rose is capable of drying and cleaning. Fifth, the applicant argues that the Rose nozzles are operating simultaneously and without control. The examiner disagrees because Rose et al. do teach a control (i.e. rotating shaft 56) which rotates the substrate 52 during the operation and causes spraying and re-spraying (e.g. spray on the same region previously sprayed by the other discharge element). Also, it is well known in the art to control nozzles by the valve. With regard to sequential operation, the nozzles can be controlled in such a manner that the nozzles are operated in a sequential manner. Moreover, the broad claims presented do not required any sequential operation. Therefore, this line of argument is irrelevant.

*Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mettens et al. (U. S. Pat. 6,821,349) shows a method and apparatus for removing a liquid from a surface.

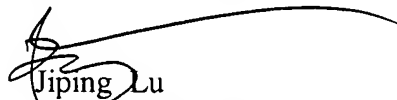
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 571 272-4877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jiping Lu  
Primary Examiner  
Art Unit 3749

J. L.